



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,578	11/21/2003	Tao-Tsung Shun	3313-1060P	9392
2292	7590	04/18/2006	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH			SMITH, NICHOLAS A	
PO BOX 747			ART UNIT	
FALLS CHURCH, VA 22040-0747			PAPER NUMBER	

1742

DATE MAILED: 04/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/717,578

Applicant(s)

SHUN ET AL.

Examiner

Nicholas A. Smith

Art Unit

1742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 February 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                                                        |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                            | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

## **DETAILED ACTION**

### **Status of Rejection**

The 35 U.S.C. 103(a) rejections to claims 1-4 based on Japanese patent 358042750, Ueta et al. (US Patent 951,789) or Sundstrom et al. (6,485,679) have been withdrawn in view of the amendment in claim 1.

### **Status of Claims**

Claims 1-4 remain for examination. Claims 5-7 have been cancelled.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-4 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. There is no literal support in the specification to amend claimed range of 5-35% Al to 25-35% Al in claim 1.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over the English abstract of Japanese patent 411071658 or Japanese patent 358153752.

JP'658 or JP'752 is applied to the claims for the same reasons as stated in paragraph 4 in the previous office action.

In regards to the amended feature of 25-35% Al in claim 1, the English abstract of JP'658 or JP'752 each discloses a multi-component alloy with constituents whose atomic% ranges including Al atomic% ranges overlap those recited by the claims. Such overlap establishes a prima facie case of obviousness, see MPEP 2144.05. It would have been obvious to one of ordinary skill in the art at the time of invention to select the claimed 25-35% Al range out of the broader 10-35% Al range as disclosed by JP'658 (abstract) or the range 5-25% Al as disclosed by JP'752 (abstract) since JP'658 or JP'752 teaches the alloy has same properties over the whole range.

***Response to Arguments***

Applicant's arguments filed 2/7/2006 have been fully considered but they are not persuasive in view of JP'658 and JP'752. In view of the amendment, applicant's arguments in view of JP'750, Ueta et al. and Sundstrom et al. are persuasive.

Applicant argues:

1. Claim 1 would reads with same wt% ranges as atomic % ranges for Fe, Co, Ni, Cr and Cu, while f wt% Al would be  $12.5 \leq f \leq 17.5$ .
2. JP'658 does not disclose Cr and Cu.
3. JP'752 restrains Co to lower than 3 at%.
4. JP'750 restrains Al to lower than 5 wt% and Cu to lower than 10 wt%.
5. Ueta et al. does not include Al, 0.1-5 wt% Cu and Co <5 wt%.
6. Sundstrom et al. does not include Co nor Cu, and Al <0.05% wt%.
7. Because of the differences in compositions mentioned above, applicant alleges his invention is a multi-component alloy with good high-temperature mechanical properties.

Examiner responds:

1. There is no simple conversion of ranges in claim 1 from atomic % to wt %. A change in a element's composition necessitates a change in both the numerator (individual component) and denominator (total). Thus, one must take a specific set of wt % of metals used in the alloy and convert them to atomic % to comply with limitations set in claim 1. However, the applicant is correct to surmise that Al has generally half the atomic weight in regards to the atomic weight of the other constituents.
2. JP'658 does disclose Cr and Cu at  $\leq 10$  at% in the English abstract, thus overlapping claim 1.

Art Unit: 1742

3. JP'752 does disclose  $\text{Co} \geq 3 \text{ wt\%}$  in the English abstract, well within the claimed range.
- 4-6. The applicant's arguments (4)-(6) are moot in view of the withdrawal of the rejections based on JP'750, Ueta et al. or Sundstrom et al.
7. Given the overlap found in the prior art (i.e. JP'658 or JP'752) with respect to the amended claim 1 stated above, the rejections based on JP'658 or JP'752 should be maintained.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 1742

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nicholas A. Smith whose telephone number is (571)-272-8760. The examiner can normally be reached on 8:30 AM to 5:00 PM, Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571)-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

\*\*\*

ROY KING   
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700